LORDKIPANIDZE, R.S.; LOSABERIDZE, G.D.; SULADZE, I.D.

Experimental study of recast prestressed concrete flumes. Soob AN Gruz. SSR 25 no. 3:305-310 S '60. (MIRA 14:1)

1. Akademiya nauk Gruzinskoy SSR, Institut stroitel'nogo dela, Tbilisi. Predstavleno akademikom K.S. Zavriyevym.
(Irrigation canals and flumes)

LOSABERIDZE, T., agronom po zashchite rasteniy

Interdistrict quarantine inspector. Zashch. rast. ot vred. i bol. 8 no.10:49-50 O '63. (MIRA 17:6)

1. Makharadzevskoye proizvodstvennoye upravleniye.

LOSABERIDZE, T.K.; GUNGUNAVA, M.N.

In a collective farm biolaboratory. Zashch. rast. ot vred. i bol. 9 no.9:48 '64. (MIRA 17:11)

1. Starshiy agronom po zashchite rasteniy Makharadzevskogo proizvodstvennogo upravleniya Gruzinskoy SSR (for Losaberidze). 2. Karantinnyy inspektor Makharadzevskogo proizvodstvennogo upravleniya Gruzinskoy SSR (for Gugunava).

LOSAKOV, L.N.

CARD 1 / 2 PA - 1491

SUBJECT USSR / PHYSICS
AUTHOR LOSAKOV, L.N.
TITLE On a Method of Computing the Propagation Parameters in Wave Guides with Non-Ideally Conductive Walls.

PERIODICAL Radiotechnika, 11, fasc. 9, 8-11 (1956)
Issued: 10 / 1956 reviewed: 11 / 1956

In practice the method of the surface effect, a general method for the approximated computation of extinction in wave guides, has become wide-spread. This method makes it possible to keep the extinction coefficients, on the occasion of the operation of the wave guide, on frequencies that are higher than those of the critical frequency. On the other hand, it is not possible to determine this constant for the critical frequency by this method or to determine the general propagation constant in the wave guide. Already in the course of a previous work, Zurn.techn.fis, 26, fasc. 4, 1956, the possibility of an approximated computation of the propagation constant in the wave guide was pointed out, viz. by application of the method based on the connection lemma. The present work confirms this method, and several results obtained by its application are mentioned. It is pointed out that the same results may be obtained with the help of the complex theorem by UMOV-POITING. Formulae are derived on the basis of which the extinction constant α and the phase constant β may be obtained without restrictions with respect to frequency, which may be lower or higher than critical frequency. From these formulae it is seen that with $\lambda \rightarrow \infty$ (λ denotes the wave

length of the excitation) the extinction constant α tends towards a constant value which is equal to $\frac{2\pi}{\lambda cr}$. λ_{cr} is the critical wave length of the wave guide. For the purpose of numerical illustration, a computation of the dependence on α and β of λ is carried out for a concrete case. Results are shown in a table, and from them it may be seen that the formulae derived may be used for a wide range of λ .

INSTITUTION:

LOSAVIO, G., inzhener; SEMENOV, N.

New method of heating engines in winter. Avt.transp. 34 no.9:13-14 S '56. (MLRA 9:11)

(Automobiles--Engines)

LOSAVIO, G., inzhener; SEMENOV, N., inzhener.

Using diluted oils in wintertime operation of automobiles. (MLRA 9:12)
Avt. transp. 34 no.10:18-19 O '56.

(Lubricants and lubrication)
(Automobiles--Lubrication)

LOSAVIO, Georgiy Semenovich; SEMENOV, Nikolay Vasil'yevich; SHELUKHIN, A.S., redaktor; GALAKTIONOVA, Ye.N., tekhnicheskiy redaktor

[Easy ways of starting automobile carburetor engines at low temperatures] Sposoby oblegcheniia puska avtomobil'nykh karbiuratornykh dvigatelei pri nizkikh temperaturakh. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1957. 34 p. (MLRA 10:9)
(Automobiles--Starting devices)

LOSAVIO, G., inzh.; SEMENOV, N., inzh.; SHUL'GIN, N., inzh.

Investigating the methods for electric and steam heating of engines before starting. Avt.transp. 36 no.8:20-22 Ag '58. (MIRA 11:9)

(Automobiles--Cold weather operation)

LOSAVIO, Georgiy Simonovich; SEMENOV, Nikolay Vasil'yevich; FILIN, A.G., red.; DONSKAYA, G.D., tekhn.red.

[Easier starting of the IaAZ-204 motortruck engines] Metody oblegcheniia puska avtomobil'nogo dvigatelia IaAZ-204. Moskva, Avtotransizdat, 1960. 39 p. (MIRA 13:11)
(Motortrucks--Cold weather operation)

LOSAVIO, G., inzh.; SEMENOV, N., inzh.

Starting the IAAZ engines in winter. Avt.transp. 38 no.2:22-25 F '60. (MIRA 13:6)
(Diesel engines--Cold weather operation)

LOSAVIO, Georgiy Simonovich; SEMENOV, Nikolay Vasil'yevich; KOKHLOV, V.V., red.; DONSKAYA, G.D., tekhn.red.

[Operating motor vehicles in winter] Zimniaia ekspluatatsiia avtomobilei. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 135 p. (MIRA 14:12)

(Motor vehicles--Cold weather operation)

LOSAVIO, G., inzh.

Starting characteristics of engines and methods for their evaluation. Avt.transp. 41 no.11:21-22 N '63. (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.

LOSAVIO, G., inzh.

Investigating starting characteristics and wear caused by the starting of a diesel engine at low temperatures. Avt. transp. 42 no.6:25-27 Je'64 (MIRA 17:7)

1. Nachal'nik laboratorii zimney ekspluatatsii avtomobiley Nauchno-issledovatel'skogo instituta avtomobil'nogo transporta.

LOSAVIO, Georgiy Simonovich; PLEKHANOV, I.P., red.

[Starting motor-vehicle engines without preheating] Pusk avtomobil'nykh dvigatelei bez razogreva. Moskva, Transport, 1965. 101 p. (MIRA 18:10)

L 27997-66 EWT(m)/T DJ/ME

ACC NR: AP6009857 (A) SOURCE CODE: UR/0413/66/000/004/0050/0051

42
B

INVENTOR: Losavio, G. S.; Lyalikov, M. B.; Sagura, I. N.; Rykin, M. N.

ORG: none

TITLE: Starting fluid[11] Class 23, No. 178925. [announced by State Scientific-Research Institute of Automotive Transport (Gosudarstvenny nauchno-issledovatel'skiy institut avtomobil'nogo transporta)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 50-51

TOPIC TAGS: liquid fuel, diethyl ether, engine starter system

ABSTRACT: An Author Certificate has been issued for a starting fluid containing diethylether. To minimize starting wear in a cold motor, industrial oil 12 is added up to 60% of the fluid by weight. [LD]

SUB CODE: 21/ SUBM DATE: 21Mar63/

Card 1/1 dd

ZABRYANSKIY, Ye.I.; LOSAYEV, K.N.; SHCHEGOL', V.V.; ARONOV, D.M.; ZARUBIN, A.P.

Electronic detonation meter DP-60. Khim. i tekh. topl. i masel 8 no.6:65-69 Je '63. (MIRA 16:6)

(Gasoline—Testing)

LOSBYAKOVA, Ye.S.

LOSIKOV, B.V., prof., red.; KREYN, S.E. prof. red.; FUKS, G.I., kand. khim. nauk, red.; LOSBYAKOVA, Ye.S., vedushchiy redaktor; MUKHINA, E.A., tekhn. red.

[Improvement in the quality and the use of lubricants; a collection of papers] Povyshenie kachestva i primenenie smazochnykh materialov; sbornik dokladov. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1957. 364 p. (MIRA 10:12)

1. Moskovskiy dom nauchno-tekhnicheskoy propagandy imeni F.E. Dzerzhinskogo.

(Lubrication and lubricants)

LOSCHILOV, V.S.

Method of submarine stereophotography in oceanographic research. (MIRA 11:12)
Probl. Arkt. no.2:205-218 '57.
(Photography, Submarine)

CZECH/37-59-2-13/20

AUTHOR: Zdeněk Losenický

TITLE: Letter to the Editor: On the Dependence of the Coefficient of Thermal Conductivity of Gases and Liquids on Pressure and Temperature

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2, pp 212-213

ABSTRACT: The isotherms of the thermal conductivity of various substances were plotted from values found in the literature (mainly from Ref 1). These isotherms are similar to those of the viscosity. This fact allows us to use similar arguments in a search for an analytical expression for these isotherms as have been used for viscosity isotherms in Ref 2. Thus Eq (1) is obtained. λ is the thermal conductivity. The only difference is that the thermal conductivity decreases to 0 at 0 pressures, while the viscosity does not. There are 2 references, of which 1 is Soviet, 1 Czech.

Card 1/1

ASSOCIATION: Katedra obecné fysiky Karlovy university, Praha (Chair of Physics, Charles University, Prague)

SUBMITTED: September 6, 1958

CZECH/37-59-3-7/29

AUTHOR: Losenický, Zdeněk

TITLE: Principle of Corresponding States Applied to the Thermal Conductivity of a Gaseous State

PERIODICAL: Československý časopis pro fysiku, 1959, Nr 3, pp 257-262

ABSTRACT: The author deals with the application of the principle of corresponding states to the pressure and temperature dependence of the thermal conductivity of gases and vapours, using the reductions:

$$p_r = p/p_c \ , \quad T_r = T/T_c$$

(p_c and T_c being critical pressure and temperatures, respectively) and reduction of the coefficient of thermal conductivity to some constant value. It is shown that the considerable inaccuracies involved in applying the principle of the corresponding states to the thermal conductivity of non-polar gases and vapours can be eliminated to a certain extent by sub-dividing the non-polar substances into groups in accordance with the number of atoms per molecule and

Cardl/2

Principle of Corresponding States Applied to the Thermal Conductivity of a Gaseous State

constructing for each group separately a network of reduced isobars; these networks will differ somewhat in shape for the individual groups. For most materials the obtained results will be more accurate than those based on the construction of a single network. It appears that for non-polar gases it is sufficient to apply a small number of groups and this permits determining λ within a considerable range of pressures and temperatures with an accuracy which is adequate for most practical requirements.
There are 4 figures and 15 references, 6f which 3 are Soviet and 12 English.

ASSOCIATION: Katedra fysiky strojní fakulty ČVUT, Praha (Physics Chair of the Mechanical Engineering Faculty, Prague)

SUBMITTED: November 1, 1958

Card 2/2

LOSENICKY Z.

CZECHOSLOVAKIA/Atomic and Molecular Physics - Heat. D

Abs Jour : Ref Zhur Fizika, No 1, 1960, 837

Author : Losenicky, Zdenek
Inst :
Title : Concerning the Problem of the Dependence of the Coefficient of Heat Conduction of Gases and Liquids on the Pressure and Temperature

Orig Pub : Chekhosl. fiz. zh., 1959, 9, No 2, 258-259

Abstract : See Abstract 836.

Card 1/1

SINEL'NIK, V.K.; LOSENKO, A.N.

High-power ferrite-transistorized decoder with a short-circuited turn for 512 outputs. Avtom.i prib. no.4:38-41 O-D '62. (MIRA 16:1)

1. Lisichanskiy filial Instituta avtomatiki Luganskogo soveta narodnogo khozyaystva.
(Electronic analog computers)

LOSENKOVA, N. [redacted]

Use of butyryl glue. Prom.koop. no.7:25 Jl '57. (MLRA 10:8)

1.Inzhener-tekhnolog arteli "Obuv'," Leningrad.
(Glue)

LOSER, H.

Dilatation gaps in building structures. Pt. 1. (To be contd.) p. 50.
(Przeglad Budowlany, Vol. 29, No. 2, Feb 1957, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

LOSER, H., dipl., inz.

Use of helicopters in construction industries. Letecky obzor 6 no.2:34-37 '62.

BAUCH, Zdenek; LOSERT, Ehrfried

Determining the optimum output from stopes by means of linear programming. Uhli 6 no. 4: 124-130 Ap '64.

1. Coal Research Institute, Ostrava-Radvanice.

Dumortierite from the migmatites and pegmatites in the vicinity of **Kutná Hora**. Jiří Lowert (Charles Univ., Prague). *Rozpravy Českoslov. Akad. Věd* 66, 1-44(1956)(English summary). — Dumortierite is found at several localities in migmatites and in pegmatites. Greenish yellow material from pegmatite contained SiO_2 30.28, Al_2O_3 [illegible], TiO_2 0.08, Fe_2O_3 [illegible].49, FeO 0.71, MgO 0.83, MnO 0.03, CaO 0.91, Na, K traces, B_2O_3 5.18, H_2O 1.27, sum 100.86%. It had α [illegible], β 1.[illegible], γ 1.[illegible]; all ± 0.003. Spectrographic analyses of 9 samples showed also traces of Ge, Cu, Be, Ga, [illegible], Sn, and Co. The paragenesis of dumortierite in all known occurrences is reviewed. 81 references. Michael Fleischer

LOSERT, J.

"Geologic conditions of the area between Harmanec and Tajov, norhtwest of Banska Bystrica."

p. 107 (Casopia Pro Mineralogii A Geologh, Vol. 2, no. 3, 1957, Czcholovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, No. 2, February 1958

LOSERT, J.

GEOGRAPHY & GEOLOGY

Vol. 63, no. 3, 1958

Losert, J. Naprstek, V. Results of geologic mapping between Badin, Tajov, and Banska Bystrica. p. 135.

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 1958

LOSERT, JIRI

~~[illegible], Vaclav~~

[illegible]; Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Chair of Mineral Raw Materials (Katedra nerostnych surovin), Faculty of Natural Sciences (Prirodovedecka fakulta), Universita Karlova/Charles University/, Prague.

Source: Prague, Vestnik Ustredniho Ustavu Geologickeho, Vol XXXVI, No 3, 1961. pp 199-202.

Date:

"Cobaltite in the Magnesite and Talc Deposits Near Hnusta in the Spissko-Gemerske Rudohori (Zips-Gömörer Erzgebirge)."

Co-author:

LOSERT, Jiri, Institute of Mineral Raw Materials (Ustav nerostnych surovin), Kutna Hora.

LOBERT, Jiri

Geology and petrography of the western part of the Lubietova zone and adjacent sub-Tatra region. Rozpravy mat. CSAV 73 no.12:1-101 '63.

LOSERT, Jiri

"Symposium: Problems of postmagmatic ore deposition." Pt.1.
Reviewed by Jiri Losert. Vest ust geol 39 no.2:103-104
Mr'64.

L 34428-66 EWP(k)/EWP(h)/EWP(v)/EWP(t)/EWP(l)/ETI IJP(c) BC/JD/HW

ACC NR: AP6026196 SOURCE CODE: CZ/0034/65/000/011/0776/0782

AUTHOR: Cerveny, Eduard--Chervenyy, E. (Engineer); Loserth, Petr--Losert, P. (Engineer); Sklenar, Jaroslav--Sklenarzh, I.

ORG: [Cerveny] Research Institute of Ferrous Metallurgy, Prague (Vyzkumny ustav hutnictvi zeleza); [Loserth, Sklenar] VZKG, Ostrava

TITLE: Analysis of the slabbing mill rolling cycle

SOURCE: Hutnicke listy, no. 11, 1965, 776-782

TOPIC TAGS: metal rolling, computer, automatic control, mathematic model

ABSTRACT: The article presents a method of regulation of revolutions on which rolling time and downtime may be computed. Adequate criteria and mathematical models are given for the determination of optimum times for automatic control by a computer. A graphic solution based on additional simplifying relationships is presented. Orig. art. has: 8 figures, 3 formulas and 1 table. [Based on authors' Eng. abstract] [JPRS: 33,732]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 002

Card 1/1 UDC: 621.944.3-412

ASTROV, O.V.; LOSEV, A.A., red.; PEGOVA, S., tekhn.red.

[Determining the efficiency of new equipment in the textile industry] Voprosy opredeleniia effektivnosti novoi tekhniki v tekstil'noi promyshlennosti. Moskva, M-vo mashinostroeniia "Glavlegmash," 1957. 41 p. (MIRA 11:6)
(Textile machinery)

IOSEV, A.

Medical conferences of the Zhlobin District Hospital in 1958. Zdrav. Bel. 5 no.5:66-67 My '59. (MIRA 12:8)
(ZHLOBIN DISTRICT--MEDICINE)

LOSEV, A., mayor; RAPOPORT, B., kapitan.

[redacted]

Wind determination from radio direction stations. Vest.Vozd.Fl. 34 no.10:47-51 O '51. (MLRA 8:3)
(Navigation (Aeronautics)) (Radio direction finders)

LOSEV, A.

Good work, Viktor! Transp. stroi. 15 no.1:36-37 Ja '65. (MIRA 18:3)

S/117/61/000/002/002/017
A004/A101

AUTHOR: Losev, A. A.

TITLE: New automatic for the cadmium plating of bearing bushes

PERIODICAL: Mashinostroitel', no. 2, 1961, 8

TEXT: The author describes a new automatic for the cadmium plating of bearing bushes which has been designed and put into service at the Gor'kovskiy avtozavod (Gor'kiy Automobile Plant). It is claimed that the new automatic, in comparison with hitherto known galvanic plating automatics (АГ-4 [AG-4], "Stevins", "Mekker" etc) has a completely different kinematic circuit, and with some changes, can be used also for other kinds of galvanic platings. The following technical data are given: length between the sprocket wheel centers in mm - 6.810; width, in mm - 2.800; height, in mm - 3.500; number of hangers on each arm - 2; number of bearing bushes on one hanger - 50; capacity per hour of the automatic - 12.000 pieces. The production cycle of cadmium plating comprises the following operations: loading, chemical degreasing, electrical degreasing, washing in cold water, cadmium plating, washing in non-running water, washing in cold running water, chromic passivation, washing in cold water, washing in hot water, drying and unloading.

Card 1/3

S/117/61/000/002/002/017
A004/A101

New automatic for cadmium plating of bearing bushes

The complete production cycle is 10 minutes, from the moment of loading to the unloading of the parts. The hanger travel, lifting and lowering mechanisms are mounted on a special frame (Fig. 2). The mechanism of longitudinal displacement is composed of driving shaft 1, on which the upper and lower sprocket wheels 2 are mounted. The driving shaft is connected to worm reducer 4 through coupling 3 and is actuated by electromotor 5 (N = 2.8 kw, n = 950 rpm). An electric block brake is mounted on clutch 6. The other end of the frame carries tension sprocket wheel 7. The upper and lower sprocket wheels are connected to each other by chains 8 and 9. The chains travel in through-shaped guides and are connected to each other through every 750 mm by vertical girders 10 on which a trolley with cantilever bracket 11 travels on rollers. Each bracket has a current collector 13 which is in contact with cathode bus bar 14. The hanger lifting and lowering mechanism consists of frame 15 which, with the aid of vertical chains 16 put on sprocket wheels 17, is lifted or lowered depending on the sense of rotation of shaft 18. Shaft 18 [Abstractor's note: The text reads "shaft 1", which is, taking into account Figure 2, a misprint] is actuated through reducer 19 by electromotor 20 (N = 2.8 kw; n = 950 rpm). Electric brake 21 is mounted between electromotor and reducer. The automatic is operated according to the following system: lifting of the hangers, displacement by one step, lowering into the baths, holding and, again, lifting.

Card 2/3

...w automatic for the cadmium plating of bearing bushes

The switching over of the cycles is accomplished by terminal switches and time relays. There are 2 figures.

Figure 2:

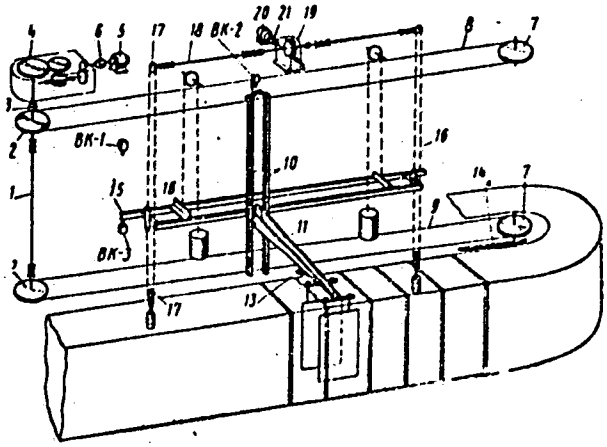

Рис. 2.

Card 3/3

LOSEV, A.A.

Modernized six-spindle press. Mashinostroitel' no. 4:22-24 Ap '61.
(MIRA 14:4)

(Power presses)

LOSEV, A.G.

The factory school for industrial training; an experiment at mass training of cadres. Moskva. Moskovskii bol'shevik, 1944. 26 p. 49-57830

T135.L6

GULYAYEV, Georgiy Ivanovich; KABANOV, N.Ya.; LOSEV, A.G., inzh., retsenzent; MIKHAYLOV, S.M., inzh., retsenzent; GAL'TSOV, A.D., inzh., red.; BARYKOVA, G.I., red.izd-va; EL'KIND, V.D., tekhn.red.

[Suggestions for greater efficiency in mass and large-series production] Ratsionalizatsiia trudovykh protsessov primenitel'no k usloviiam massovogo i krupnoseriinogo proizvodstva. Izd.2. Podgotovleno N.IA. Kabanovym. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 126 p. (MIRA 12:3)
(Efficiency, Industrial)

GAL'TSOV, A.D.; DENISYUK, I.N.; LEVANDOVSKIY, S.N.; LOSEV, A.G.; PEZIK, M.O.; PETROCHENKO, P.F.; SAVOS'KIN, N.M.; TROBITSKIY, G.R.; KHISIN, R.I.; KHROMILIN, V.A.; ALEKSEYEV, S.S., retsenzent; GAL'PERIN, L.I., retsenzent; GRANOVSKIY, Ye.N., retsenzent; ZAKHAROV, N.N., retsenzent; KVASHNIN, S.A., retsenzent; KEREKESH, V.V., retsenzent; KOTENKO, I.N., retsenzent; LIVSHITS, I.M., retsenzent; LERNER, G.V., retsenzent; NEVSKIY, B.A., retsenzent; NOVIKOV, V.F., retsonzent; RAZAMAT, E.S., retsenzent; SERGEYEV, A.V., retsenzent; STEFANOV, V.P., retsenzent; TOLCHENOV, T.V., retsenzent; FEDOTOV, F.G., retsenzent; VOL'SKIY, V.S., red.; STRUZHESTRAKH, Ye.I., red.; USPENSKIY, Ya.K., red.; SEMENOVA, M.M., red.izd-va; MODEL', B.I., tekhn.red.

[Handbook for work-norm experts in machine manufacture] Spravochnik normirovshchika-mashinostroitelia v 4 tomakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.1. [Fundamentals of technical normalization] Osnovy tekhnicheskogo normirovaniia. 1959. 676 p. (MIRA 12:12)

(Standardization)

LOSEV, A.G.; METT, G.Ya., dots., red.; MARYKOVA, G.I., red. izd-va; VLADIMIROVA, L.A., tekhn. red.; DEMKINA, N.F., tekhn. red.

[Organization of work in a shop section] Organizatsiia truda na proizvodstvennom uchastke. Moskva, Mashgiz, 1962. 173 p. (MIRA 15:7)

(Machinery industry)

LOSEV, A.G.

Efficient organization of working areas. Mashinostroitel' no.6: 26-32 Je '62. (MIRA 16:5)
(Factory management)

BEGIDZHANOV, M.G., red.; ZHUKOV, V.P., red.; LOSEV, A.G., red.

[Scientific organization of labor in working areas; practice of the collectives of the Ural Chemical Machinery Plant and other enterprises of the Central Urals] Nauchnaya organizatsiia truda na rabochikh mestakh; opyt kollektivov Uralkhimmashzavoda i drugikh predpriiatii Srednego Urala. Moskva, Profizdat, 1965. 198 p. (MIRA 18:8)

LOSEV, A.G.; BELOUSOV, N.Z. (Khar'kov); GOLYSHEV, V.G. (Khar'kov)

Book on continuous tracks. Put' i put.khoz. 8 no.3:43 '64.
(MIRA 17:3)

1. Nachal'nik tekhnicheskogo otdela sluzhby puti, Moskovskaya doroga , Moskva (for Losev).

LOSEV, A.I.

Processing shaped glassware articles. Moskva, Gizleprom, 1940. 125p. Uchebniki i uchebnye posbiia dlia shkol FUZ

Cyr.4 TP8

LOSEV, Aleksey Konstantinovich; SHUL'GIN, K.A., otv. red.;

[Theory and design of electromechanical filters] Teoriia i raschet elektromekhanicheskikh fil'trov. Moskva, Sviaz', 1965. 262 p. (MIRA 18:8)

LOSEV, A. K.

"Fine Chain Band Filters." Cand Tech Sci, Kiev Order of Lenin Polytechnic Inst, 15 Nov 54. (PU, 4 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

L 19946-63 BDS

ACCESSION NR: AP3006948 S/0106/63/000/009/0026/0033

AUTHOR: Losev, A. K.

TITLE: Increasing the frequency of electromechanical chain filters

SOURCE: Elektrosvyaz', no. 9, 1963, 26-33

TOPIC TAGS: magnetostriction, magnetostriction filter, electromechanical filter

ABSTRACT: Two factors have prevented the use of frequencies above 0.5-1 Mc in magnetostriction filters: (1) too small a size of resonators, links, and converter cores, and (2) too low an efficiency of converters. Both drawbacks can be eliminated by using "higher-order" components, and the article considers characteristics of such "higher-order" filters. Each resonator and link is designed for $n\frac{\lambda_0}{4}$ with $n > 1$, instead of the conventional $\frac{\lambda_0}{4}$, which makes its size correspondingly larger. Formulas describing characteristic phase and

Card 1/2

nominal link impedance are compared with conventional formulas, and the conclusion is drawn that the higher-order filters behave exactly like ordinary filters. To ensure high conversion efficiency, the converter core should be made up of magnetized half-wave elements with like polarities in contact in every adjacent pair of elements. A theoretical proof is provided that the higher-order output converter "does not increase the transmission factor of the electromechanical filter, only makes its physical size acceptable." A numerical example for 5 Mc shows that each resonator and converter would be 5 mm long and each link, 1.25 mm long. A. D. Kuz'min's studies have shown that the accuracy of the tuning of such a filter is independent of the resonant frequency. Orig. art. has: 7 figures and 33 formulas.

ASSOCIATION: none

SUBMITTED: 19Mar63 DATE ACQ: 30Sep63 ENCL: 00

SUB CODE: GE NO REF SOV: 002 OTHER: 002

ACCESSION NR: AP4014631 S/0106/64/000/001/0001/0008

AUTHOR: Losev, A. K.

TITLE: Filters with multi-element ties

SOURCE: Elektrosvyaz', no. 1, 1964, 1-8

TOPIC TAGS: electric filter, electromechanical filter, multi tie electromechanical filter, punched electromechanical filter, very narrow band filter

ABSTRACT: The necessity of using electric welding in manufacturing electromechanical rf filters has been one of the factors hindering the development of methods for their mass production. It is shown in the article that a narrow-band filter may consist of a number of quarter-wave Z_1 -impedance rods connected to each other by quarter-wave Z_2 -impedance rods. It is further shown that both types of rods can be replaced with plates, which turns the filter section into a dented-edge stamped strip, thus solving the mass-production problem. This

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ACCESSION NR: AP4014631

filter classification is proposed: broadband (with δ proportional to $\sqrt{K}$), first-order narrow-band (with δ proportional to K), and second-order narrow-band (δ proportional to K^2), where $K = Z_2/Z_1$; Z_2 and Z_1 are characteristic impedances of filter elements, $\delta = \frac{2\Delta F}{f_0}$, $2\Delta F$ is the absolute passband width, f_0 is the passband mid-frequency. Orig. art. has: 4 figures and 34 formulas.

ASSOCIATION: none

SUBMITTED: 08Jun63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: GE, CO NO REF SOV: 001 OTHER: 001

Card 2/2

LOSEV, A.K.

Matching of iterated filters. Elektrosviaz' 18 no.3:30-37 Mr '64. (MIRA 17:4)

L 25564-66

ACC NR: AM6004740 Monograph UR/

21
B+1

Losev, Aleksey Konstantinovich

Theory and Calculation of electromechanical filters (Teoriya i raschet elektromekhanicheskikh fil'trov) Moscow, Izd-vo "Svyaz'", 1965. 262 p. illus., biblio. 5,500 copies printed

TOPIC TAGS: filter, electromechanic converter, magnetostriction

PURPOSE AND COVERAGE: It is stated in the introduction that electromechanical filters can be used frequently to advantage to replace electrical filters, in some cases even quartz controlled filters. The book is devoted to an exposition and systematization of a general theory of electromechanical filters, to methods of their analysis and synthesis, and to procedures for engineering design of such filters. The text is based essentially on results of research carried out by the author and reported at various conferences on electromechanical filters. It is designed for engineers and scientific workers in the field. The author thanks Professor E. V. Zelyakh, Professor G. A. Levin, Professor N. I. Chistyakov, A. L. Irzhavskiy, K. A. Shul'gin, and all his colleagues for prolonged participation in a discussion of this work.

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UDC: 621.372.54.001.24

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L 25564-66

ACC NR: AM6004740

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SUB CODE: 13/ SUBM DATE: 09Jul65/ ORIG REF: 058/ OTH REF: 064

Card 2/2 FW

LOSEV, A.P.

Methods for obtaining radiochemically pure xanthophylls. Fiziol. rast. 11 no.6:1098-1104 N-D '64. (MIRA 18:2)

1. Lenin White Russian State University, Minsk.

LOSEV, A.P.; SHLYK, A.A.

Interrelation of carotenoids and phytol in biosynthesis. Biokhimiia 29 no.3:457-462 My-Je '64. (MIRA 18:4)

1. Laboratoriya biofiziki i izotopov AN Belorusskoy SSR i Gosudarstvennyy universitet imeni Lenina, Minsk.

SHLYK, A.A. [Shlyk, A.A.]; LOSEV, A.P. [Loseu, A.P.]

Distribution of C^{14} in chlorophylls a and b in etiolated leaves which have turned green. Vesti AN BSSR Ser. biial. nav. no.1: 21-33'63. (MIRA 16:9)

(CARBON ISOTOPES) (CHLOROPHYLL)

BYTEVA, I.M.; LOSEV, A.P.; GURINOVICH, G.P.

Interrelationships of chlorophylls a and b and their derivatives with hydrazine and phelylhydrazine. Biofizika 10 no.6:953-960 '65. (MIRA 19:1)

1. Institut fiziki AN Belorusskoy SSR, Minsk. Submitted April 12, 1965.

AEKIN, B.V., inzh.; LOSEV, A.S., inzh.; SOFRYGIN, P.V., inzh.; SLOBODYAN, I.P., inzh.; TSYUPA, F.P., inzh.

Start of the leading PK-47 boiler. Elek. sta. 35 no.9:2-5 S '64. (MIRA 18:1)

FOSHKO, L.S., inzh.; LOSEV, A.S., inzh.; PROKHOROV, F.G., kand.tekhn. nauk

Conditioning water for industrial boiler installations and evaporators by the addition of sodium-chloride ions. Tep'oenergetika 6 no.1:44-48 Ja '59. (MIRA 12:1)

1. Donbassenergo - Vsesoyuznyy teplotekhnicheskiy institut.
(Feed-water purification)

KVYATKOVSKIY, V.M., kand.tekhn.nauk; BAULINA, A.I., inzh.;
FOSHKOV, L.S., inzh.; LITVINOV, V.G., inzh.;
LOSEV, A.S., inzh.

Studying the hot liming process in water enriched with magnesium compounds. Teploenergetika 7 no.10:47-52 O '60.
(MIRA 14:9)

1. Vsesoyuznyy teplotekhnicheskiy institut i Donbassenergo.
(Feed water purification)

LOSEV, A.V., inzhener.

Efficient design for roller-bearing axle boxes of diesel locomotives. Tekh.shel.dor. 15 no.3:13-15 My '56. (MLRA 9:8)
(Car axles) (Diesel locomotives)

LOSEV, Aleksey Vasil'yevich; KONNOV, Yevgeniy Porfir'yevich; SEMENOV, Ivan Mikhaylovich; GENICH, Boris Abramovich; SHARONIN, V.S., kand. tekhn. nauk, retsenzent; SOBAKIN, V.V., inzh., red.; KHITROV, P.A., tekhn. red.

[Using and repairing antifriction bearings in locomotives] Ekspluatatsiia i remont podshipnikov kacheniia lokomotivov. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 162 p. (MIRA 14:8)

(Bearings(Machinery))

ABASHKIN, V.V., kand.tekhn.nauk; DEVYATKOV, V.F., kand.tekhn.nauk; PAVLOV, I.V., kand.tekhn.nauk; LOSEV, A.V., inzh.

Method of investigating the performance of the axle roller cage. Vest.TSNII MPS 20 no.3:37-40 '61. (MIRA 14:5)
(Car axles) (Roller bearings)

SEMENOV, I.M., kand.tekhn.nauk; LOSEV, A.V., inzh.

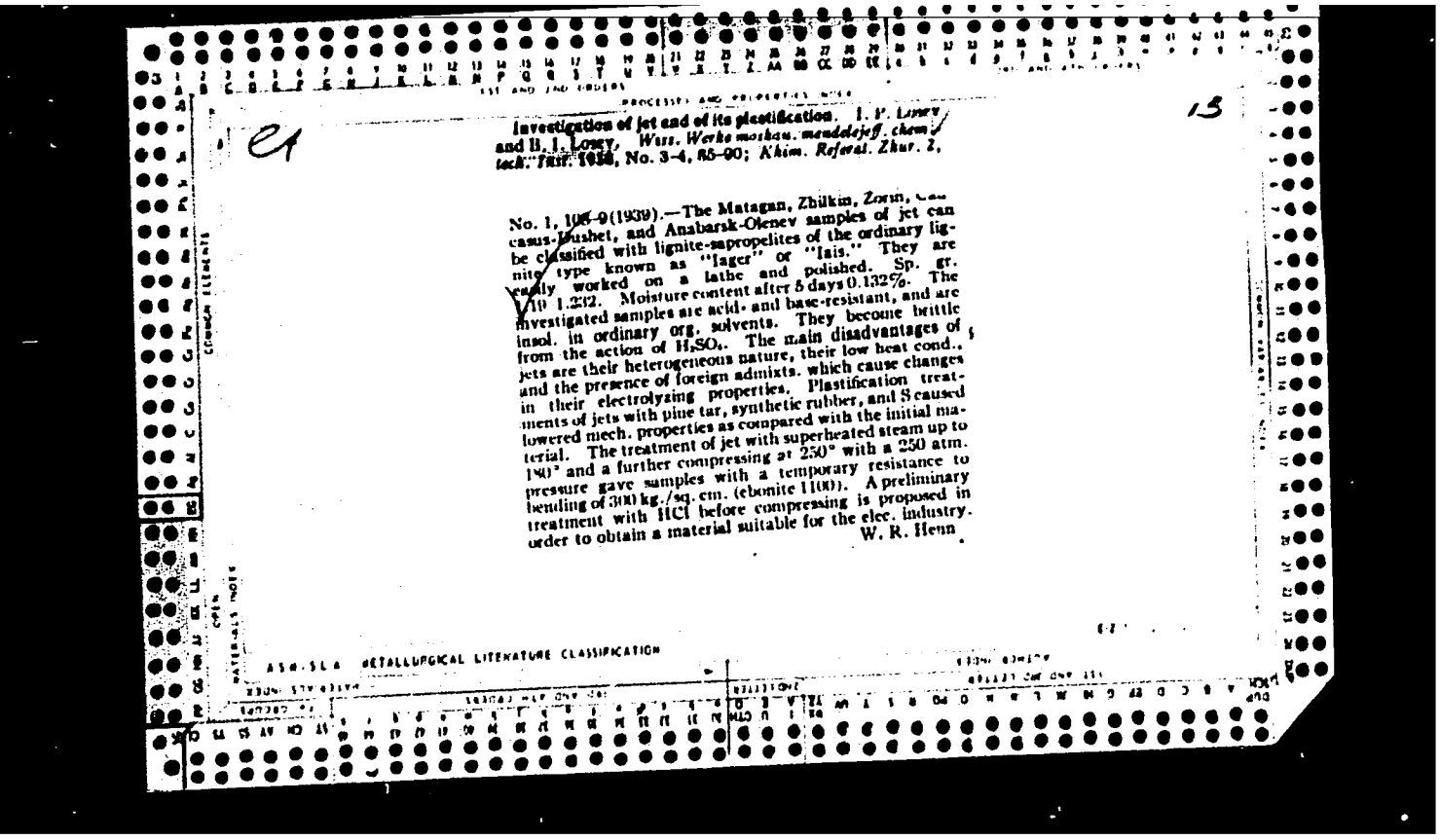
Experiment in the operation of axle box assemblies with roller bearings on electric and diesel locomotives. Trudy TSNII MPS no.221: 5-15 '61. (MIRA 15:1)
(Roller bearings) (Locomotives--Testing)

ABASHKIN, V.V., kand.tekhn.nauk; DEVYATKOV, V.F., kand.tekhn.nauk; LOSEV, A.V., inzh.; PAVLOV, I.V., kand.tekhn.nauk

Development of a safe design for the cage of cylindrical roller bearings. Trudy TSNII MPS no.221:85-99 '61. (MIRA 15:1)
(Roller bearings)

ZADOYANNYY, V.V., podpolkovnik med.sluzhby; LOSEV, A.Ya., podpolkovnik med.sluzhby

Indications for the designation of cardiac glycosides in blood circulation insufficiency. Sbor.nauch.trud.Kiev.okruzh.voen. gosp. no.4:189-196 '62. (MIRA 16:5)
(CARDIAC GLYCOSIDES) (BLOOD—CIRCULATION, DISORDERS OF)



E1

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Investigation of jet and of its plastification. I. P. Losev and B. I. Losev, *Wiss. Werke moskau. mendelejeff. chem. tech. Inst.* 1938, No. 3-4, 85-90; *Khim. Referat. Zhur.* 2, No. 1, 108-9(1939).—The Matagan, Zhilkin, Zorin, Cas casus-Bushet, and Anabarsk-Olenev samples of jet can be classified with lignite-sapropelites of the ordinary lignite type known as "lager" or "lais." They are easily worked on a lathe and polished. Sp. gr. 1.10-1.232. Moisture content after 5 days 0.132%. The investigated samples are acid- and base-resistant, and are insol. in ordinary org. solvents. They become brittle from the action of H_2SO_4. The main disadvantages of jets are their heterogeneous nature, their low heat cond., and the presence of foreign admixts. which cause changes in their electrolyzing properties. Plastification treatments of jets with pine tar, synthetic rubber, and S caused lowered mech. properties as compared with the initial material. The treatment of jet with superheated steam up to 180° and a further compressing at 250° with a 250 atm. pressure gave samples with a temporary resistance to bending of 300 kg./sq. cm. (ebonite 1100). A preliminary treatment with HCl before compressing is proposed in order to obtain a material suitable for the elec. industry.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LOSEV, B. I.

24-9-12/33

AUTHORS: Losev, B. I., Mel'nikova, A. N. and El'piner, I. Ye.(Moscow)

TITLE: Halogenation and extraction of germanium from coal inside an ultrasonic wave field. (Galoidirovaniye i izvlecheniye germaniya iz ugley v pole ul'trazvukovykh voln).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.9, pp. 90-95 (USSR)

ABSTRACT: Coal ash does contain a certain amount of germanium. In earlier work (Refs.1-4), the authors investigated the ash of clarain and vitrain and, particularly, of fusain. Since ultrasonics have dispersion and chemical effects, it was obvious to assume that it is possible to intensify by means of ultrasonics halogenation reactions which represent an important stage in the process of extraction of rare elements from the coal substance. In the experiments the coal was crushed to a fraction passing through a sieve with holes of 0.25 mm. The studied coal contained not over 0.0006% of germanium (relative to the ash content); only in a single specimen did the germanium content amount to 0.00175%. Bromination of the coal was effected in a three-neck flask containing an agitator. A certain quantity of water was added to the coal and the mixture was carefully intermixed. Following that, brome

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Halogenation and extraction of germanium from coal inside an ultrasonic wave field.

was introduced in drops and the bromination was continued for a specified time whilst continuously mixing the reaction mixture. Then, the coal was separated from the liquid phase in a Buchner funnel and washed from the adsorbed brome by distilled water until the washing water showed a negative reaction from the point of view of haloid content. Following that, the coal was dried at 80°C and analysed and the quantity of germanium in the filtrate was determined by means of a method developed by Nazarenko, V. A. and Ravitska, R.V. Chlorination was effected whilst feeding chlorine at a speed of two bubbles per second. For separating the germanium it is extracted from the analysed aqueous solutions in the form of germanium tetrachloride from 9-normal hydrochloric acid with carbon tetrachloride. The extract of germanium tetrachloride in carbon tetrachloride is effected by means of water which is then acidified and gelatine and phenyl fluoride are added. Ultrasonics of 380 and 750 kc/sec were supplied from a piezo-quartz plate of 50 mm dia. with a radiation intensity of 8W/cm^2 of the radiating surface. The distance between the reaction vessel and the piezo-quartz plate

Halogenation and extraction of germanium from coal inside an ultrasonic wave field.

equalled 15 to 16 cm. Halogenation inside an ultrasonic field was effected for coal of 0.25 to 0.10 mm fractions in an aqueous medium and the extraction of germanium by halogenation of coal was investigated inside an ultrasonic field as well as the extraction of germanium from coal under the effect of an ultrasonic field without halogenation. The results are plotted in graphs. An intensification was observed of the process of halogenation during irradiation with ultrasonics and this is primarily attributed to the fact that the presence in the aqueous solution of haloid is partly activated by the ultrasonics, which leads to the appearance of atomary chlorine or brome which is chemically more active than the molecular haloid. It is pointed out that activation of certain gases in the ultrasonics field is possible only in the presence of cavitation; speeding up of the halogenation process is in principle possible at such an intensity of the ultrasonics at which cavitation phenomena will inevitably occur; under certain conditions cavitation will set in approximately for a radiation intensity of 0.3 W/cm^2. In the here described experiments, the irradiation intensity was 8 W/cm^2, however, the irradiation was effected in glass vessels

Halogenation and extraction of germanium from coal inside an ultrasonic wave field.

which were submerged into an "ultrasonic" fountain and, according to Bergmann, the surface of glass reflects about 80% of the incident ultrasonic energy. Of particular interest is the fact of separation of germanium from the coal inside an ultrasonics field in absence of a haloid in the reaction mixture. The hypothesis is expressed that separation of germanium from coal is appreciably affected by mechanical forces which are linked with the appearance and collapse of cavitation bubbles which generate shock waves capable of breaking up the coal substance, provided that the cavitation cavity forms at a distance not exceeding a few microns from the coal particle. The results throw a new light on the intensified separation of germanium during simultaneous irradiation and halogenation of coal in presence of slight quantities of carbon tetrachloride. The selection of this compound is not accidental since it is known that traces of carbon tetrachloride intensify oxidation processes inside an ultrasonics field, as a result of which atomary Cl splits off easily. Intensification of the chemical processes in presence of CCl_4 is additionally explained by the fact

Halogenation and extraction of germanium from coal inside an ultrasonic wave field. 24-9-12/33

that, being broken up into fine particles and scattered throughout the entire volume of the water, it produces nuclei of easy disruption of the continuity of the irradiated liquid under the influence of ultrasonic waves, i.e. it improves the conditions for the formation of cavitation. On the basis of the obtained results, it is concluded that the halogenation of coal proceeds much more rapidly inside an ultrasonic field than under ordinary conditions; the process of brominations proceeds about 160 times faster inside an ultrasonic field than without such a field. Depending on the reaction conditions, bromination of coal inside an ultrasonic field permits extraction of 50 to 100% of the germanium contained in the coal charge. Carbon tetrachloride has a catalytic effect on the processes of separation of germanium from coal by the method of bromination inside an ultrasonic field. The experiments also showed that under certain conditions it is possible to extract germanium from coal without simultaneous halogenation. There are 4 figures and 4 Slavic references.

Card 5/5

SUBMITTED: June 5, 1957.
AVAILABLE: Library of Congress.

20-2-38/60

AUTHORS: Losev, B. I. , El'piner, I. Ye. , Mel'nikova, A. N.

TITLE: On the Halogenation of Coals Under Influence of Ultrasonic Waves (O protsesse galoidirovaniya ugley pod deystviyem ul'trazvukovykh voln)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.372-374 (USSR)

ABSTRACT: By extraction of rare metals from coals the problems of halogenation of coals have become acute, because this is the main method applied for this purpose. However, exact data as to the mechanism of halogenation are lacking, and the present methods are not characterized by a high yield. The process of halogenation is heterogeneous. It takes place at the boundary of two phases : Solid coal - liquid or gaseous halide. Naturally, for this purpose the solid phase with larger surface and higher dispersion would offer greater advantages. In addition, increase in the chemical activity of the reacting halide should accelerate the speed of the reaction. These requirements are largely satisfied by a new method

Card 1/4

On the Halogenation of Coals Under Influence of Ultrasonic Waves

devised by the authors of the paper under review, namely the use of ultrasonic waves which increase by several times the original amount the reaction yield and the combination reaction of coal with halides. The bromination takes place under relatively mild conditions of acceleration, i.e. under a relatively low intensity of the ultrasonic waves. These waves also accelerate a reaction with chlorine. A piezo-quartzgenerator was used. The quantity of bromine absorbed by the coal was determined with the aid of a micromethod, devised in the Institute of the authors of the present paper (see under "A" below). It can be seen from the results that without being exposed to ultrasonic waves the coal absorbed 2.68 % of its dry weight of bromine during the interval of seven minutes, whereas in the ultrasonic wave field, with the time interval remaining the same, this amount increased to 47.3 %. These data are contained in Table Nr 1 of the paper under review. The latter value (47.3 % in the ultrasonic wave field) corresponds to twenty hours of bromination at 0° without exposure to ultrasonic waves ; in other words: the process of bromination is accelerated to 160 times of its original efficiency. A chlorination (Table Nr 2 of the

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On the Halogenation of Coals Under Influence of Ultrasonic Waves

paper under review) the process of absorption is accelerated almost two- and-a-half times. Rough interpretation of this acceleration: the ultrasonic waves have a dispersing effect, probably as result of mechanic forces that are created at opening and closing of cavitation bubbles. It appears that considerably mechanic forces also are produced when the pulsating frequency of the same gas bubbles coincides with the frequency of the ultrasonic oscillations (resonance phenomenon). Another possibility is the appearance of the activated halide as result of the molecular dissociation in the cavitation cavities, a phenomenon discovered for iodine (with subsequent reduction) as early as 1950. It should also be taken into account that in the cavitation cavities there appear, as result of the splitting of the "activated" water molecules, products with oxidizing effects. There are 2 tables, and 4 references, 3 of which are Soviet.

On the Halogenation of Coals Under Influence of Ultrasonic Waves

ASSOCIATION: Institute of Mineral Fuels, AS USSR
(Institut goryuchikh iskopayemykh Akademii nauk SSSR)

PRESENTED: December 4, 1956, by A. N. Frumkin, Member of the Academy

SUBMITTED: October 2, 1957

AVAILABLE: Library of Congress

Card 4/4

LOSEV, B. I.

AUTHORS: Losev, B. I., and Zakharova, Yu. I. 20-4-/23/51

TITLE: The Effect of Perchlorates on Styrene Polymerization (Vliyaniye khlornokislykh soley na polimerizatsiyu stirola)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 4, pp. 609-612 (USSR)

ABSTRACT: The polymerization of ethylene derivates is to a great extent influenced by arbitrary admixtures: some of them accelerate this process, other, however, slow it down by the prolongation of the induction period. The authors have chosen anhydrous magnesium perchlorate ("anhydron" according to Villard and Smith, reference 3)for the water extraction from styrene. However, polystyrene was found in the styrene which was above the magnesium perchlorate at 10°. Since the polymerizing effect of magnesium perchlorate was known, the authors have decided to test also other perchlorates (of barium, potassium, and ammonium) in this connexion. The method of polymerization is described in the experimental part. The method of the empiric calibration curve was used for the determination of the polystyrene in styrene according to the refraction index. Already the first experiments showed that the perchlorates shorten the induction period and accelerate the styrene polymerization. However, no dependence of the polymerization velocity on the quantity of the perchlorates could be found

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in the mixture. No decomposition of the perchlorates was observed. Chlorides of potassium, barium, and magnesium turned out to be inhibitors. Hence it follows that in the case of using potassium- and barium perchlorate a socalled heterogeneous-homogeneous catalysis takes place, i.e. active centres are produced on the perchlorate surface under complex formation, whereas the growth of macromolecules takes place in the mass of the monomer, i.e. homogeneously. Magnesium perchlorate is a stronger catalyser than the other perchlorates used here. Apparently beside a heterogeneous catalysis also an ion polymerization takes place. The independence of the molecular weight of the polymer of the magnesium perchlorate quantity proves the lacking of a recomgination mechanism of the chain stripping which is characteristic of a radical polymerization. The authors think the assumed mechanism to be neither strictly proved nore unequivocal. The velocity of the process is described satisfactorily for potassium, ammonium, and barium by the equation

$$\frac{dM}{d\tau} = K [M][C] + B [M] .$$

If magnesium perchlorate is used the polymerization velocity is proportional to its concentration, if its content exceeds 0,125 mol/mol styrene.

The Effect of Perchlorates on Styrene Polymerization. 2o-4-23/51

There are 4 figures, 1 table and 8 references, 5 of which are Slavic.

PRESENTED: April 29, 1957, by A. V. Topchiyev, Academician

SUBMITTED: April 29, 1957

AVAILABLE: Library of Congress

Card 3/3

LOSEV, Boris Ivanovich, prof.; FAYNBOYM, I.B., red.; BERLOV, A.P., tekhn. red.

[Solidified gasoline; chemistry, technology, and use] Tverdyi benzin; khimiia, tekhnologiia i primenenie. Moskva, Izd-vo "Znanie," 1958. 22 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 8, vyp. 2, no. 15). (MIRA 11:11)
(Gasoline)
(Briquest(Fuel))

SOV/24-58-4-24/39

AUTHORS: Bylyna, E.A., Losev, B.I. and Troyanskaya, M.A. (Moscow)

TITLE: Extraction of Germanium from Coal by γ-irradiation in Carbon Tetrachloride (Izvlecheniye germaniya iz ugley pri γ-obluchenii v chetyrekhkhloristom uglerode)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 124 - 125 (USSR)

ABSTRACT: Soviet and foreign scientists have established that in many coal beds the germanium content is high enough for its extraction from coal (Refs 1, 2). Many investigations (Refs 6-8) have shown that γ-irradiation of carbon tetrachloride results in formation of free chlorine. This free chlorine is then used to extract germanium (chlorination method). Four types of coal were tried. They were heated in flasks with carbon tetrachloride and irradiated at the rate of 200 roentgen/sec. After irradiation the liquid phase and the coal were analysed for germanium.

Recovery of germanium in the liquid phase was small for coals containing little of it. Results for extraction from two coals richer in germanium are given in Table 1, 53% and 100% being extracted in these cases with

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Extraction of Germanium from Coal by γ-irradiation in Carbon Tetrachloride

10^8 roentgens. With 10^6 and 10^7 roentgens the amount of germanium extracted is smaller. The percentage extracted also depends on the moisture content. When undried carbon tetrachloride was used 40.3% germanium was recovered instead of 100% and if undried coal was also used, the recovery fell to 9.3%. It was noted that after irradiation, carbon tetrachloride could dissolve more coal.
There are 2 tables and 8 references, 6 of which are Soviet, 1 English and 1 German.

SUBMITTED: January 13, 1958

AUTHOR: Losev, B.I., Professor (Moscow) SOV-26-58-9-6/42

TITLE: Solid Gasoline (Tvërdyy benzin)

PERIODICAL: Priroda, 1958, Nr 9, pp 38-44 (USSR)

ABSTRACT: Diverse types of solid gasoline assume an ever growing importance in many industrial sectors. Gasoline briquettes containing 95% liquid gasoline and 5% of substances forming a cellular structure are of prime importance. These briquettes can be stored and conveyed to other places without metal containers. The solid gasoline becomes liquid by pressure in a worm-type press where the solid substances are eliminated. The loss during regeneration is 2 to 3%; the quality does not change. This solid gasoline is considerably less dangerous with respect to fire. It does not spread out, and the vapors have a negligible buoyancy. The briquettes do not easily ignite, the flame spreads slowly and can be easily extinguished. The idea of solidifying liquid substances can be traced back to the Russian engineer and technologist N. Chekalov in 1903. The method of solidifying liquid agents by aid of soap of the stearate of aluminum type has also been applied to liquid fuel. Similar thickening agents were worked out on the basis of naphtinates of aluminum by A.P. Ionov upon consultation with academician P.A. Rebinder. The method was scientifically founded

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and completed by the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry AS USSR) by A.A. Trapeznikov and N.A. Bakh. Recently methods for the thickening of liquid fuels of the "napalm" type were published. In order to reduce the danger of fire with fuel to be stored, it was suggested to emulsify the gasoline with soap and a minimal quantity of water, which later can be seperated by a weak electric current. In the Vodoroslevyy institut (Algae Institute) in Arkhangel'sk, work was conducted on large-scale utilization of alginate ($C_6H_7O_6$) extracted from seaweed for foam-like substances. In 1950 data was published on storing gasoline in a solid state by aid of colloidal alginate. In 1939 and 1940 Komskiy and Fayntsimer worked out a method by which a highly concentrated gasoline emulsion was made on the basis of water-soluble albumins with a subsequent tanning in formalin. This method yielded briquettes of solid gasoline. The method is better than other foreign processes and allows the solidification of liquid oil products, vegetable oils, several medicinal substances, gases of the butane type, etc. into briquette shape. But the briquettes obtained on casein basis are not suitable for long storing periods. Therefore several water-soluble polymerized and condensed resins, such as polyvinyl

alcohol and uric fomaldehydes were used. If these, pure or together with casein, are mixed with liquid hydrocarbons (gasoline), a thick viscosous mass is obtained which, upon further processing, assumes the consistency of cheese. This is sufficient for shipping without special containers. Academician P.A. Rebinder's method is described in detail (ref. 1, figs. 1 and 2). Research carried out in the AS USSR showed that several emulsifiers composed of polyvinyl alcohol, uric formaldehyde and casein yield the best results. The cellular structure of the solid fuel briquettes is based on the principle of synheresis. The outer appearance of the briquettes is that of a cylinder (fig. 3) of white or yellow color. They weigh 800, 400 and 200 grams and are packed in thick paper or cardboard for shipping. They can be ignited by a match and burn slowly with an even flame. One kg of the solid fuel yields 10,000 kcal of heat. These qualities rendered the solid fuel briquettes ideal for expeditions in the Caucasus, Pamirs, transpolar regions and the Antarctic. There are 2 photos, 2 drawings and 1 Soviet reference.

1. Gasoline--Processing 2. Gasoline--Properties

SOV/30-58-10-9/55

AUTHORS: Losev, B. I., Mel'nikova, A. N., Saprykin, F. Ya., Troyanskaya, M. A., Bylyna, E. A.

TITLE: New Methods of Examining the Material Composition of Coal (Novyye metody izucheniya veshchestvennogo sostava ugley)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 10, pp 58-60 (USSR)

ABSTRACT: Research with the purpose of obtaining the most effective methods of extracting rare metals from coal was carried out at the Institut goryuchikh iskopayemykh Akademii nauk SSSR (Institute for Mineral Fuels of the AS USSR). For this purpose, γ-rays, ultrasonics, and electro-hydro effects were used. The influence of the dose of radiation on the yield of germanium may be seen in table 1. The second method consists of ultrasonic treatment of coal during its halogenation. The results of experiments with ultrasonic treatment of coal in water are listed in table 2. A more intensive disruption of the cohesive forces of rare elements in coal is obtained by the use of electro-hydraulic effects. These experiments were carried out in the Laboratoriya elektrogidravlicheskogo effekta Leningradskogo Politekhnicheskogo instituta (Laboratory for Electro-Hydraulic

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New Methods of Examining the Material Composition of Coal SOV/30-58-10-9/53

Effects of the Leningrad Polytechnic Institute) under the direction of L. A. Yutkin. There are 2 tables.

Card 2/2

LOSEV, B. I.

AUTHOR: Losev, B. I., Doctor of Technical Sciences 30-1-10/39

TITLE: "Solid Gasoline" ("Tverdyy benzin")

PERIODICAL: Vestnik AN SSSR, 1950, Vol. 20, Nr 1, pp. 65-68 (USSR)

ABSTRACT: The author and M. A. Troyanskaya carried out experiments since 1949 at the Institute for Combustible Fossils of the AN USSR (Institut goryuchikh iskopayemykh Akademii nauk SSSR) with a view of hardening liquid hydrocarbons of the series $C_nH_{2n} + 2$; C_nH_{2n}; $C_nH_{2n} - 6$ and others on the basis of synthetic resins which are soluble in water. The method of packing gasoline was developed together with the respective operational process (figure 1). The production of briquettes is carried out in two processes of obtaining an emulsion of high concentration (figures 2 and 3) and the following stabilization by producing a firm protective skin surrounding the particles, so that common contact is avoided. With a sufficient stabilization of the emulsion a compact mass is formed, which has the properties of a solid (elasticity, shape). In order to give the briquettes a definite plasticity, such compounds are determined as form mixed crystals. By the addition of various organic substances

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the protective skins on the drops are hardened. During consumption the liquid fuel is pressed out by means of a press up to 97 - 98% and can be used as motor fuel. In motor vehicles and aircraft it is possible to provide small presses which supply liquid fuel in such quantities as is required by the speed of the machine, which can be attained by coupling the shaft of the press with that of the motor. Fuels in packets are not as liable to cause fire as liquid fuels, and it is easier, if fire breaks out, to put it out with water and sand. These briquettes can be stored for long periods in pits, in the open, under a roof, and even in water, so that the keeping of stores is made easier. There are 3 figures.

AVAILABLE: Library of Congress

1. Gasoline-Production 2. Hydrocarbons 3. Gasoline-Stabilization

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Solidified gasoline. Priroda 47 no.9:38-44 S '58. (MIRA 11:9)
(Gasoline)

SOV/ 20-120-2-24/63

AUTHORS: Losev, B. I., Troyanskaya, M. A., Bylyna, E. A.

TITLE: The Influence Exerted by γ-Radiation Upon Coals in Aqueous and Carbon-Tetrachloride Medium (Deystviye γ-izlucheniya na ugli v vodnoy srede i v srede chetyrekhkhloristogo ugleroda)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 2, pp. 314 - 315 (USSR)

ABSTRACT: From the papers on the water radiolysis (References 1,2) it is known that ions and free radicals form under the influence of ionizing radiations and in the presence of atmospheric oxygen. These are capable of bringing about an oxidation or reduction of substances added to the irradiated aqueous system. It could be expected that a γ-radiation in an aqueous medium would lead to chemical changes of the most reactive part of the organic substance of the coals, whereby the germanium contained in the coal would pass over into the aqueous medium. Besides the products of a radiolytic oxidation of the coals could be investigated and identified. The dose of irradiation was 200 r/sec and the integral dose 10^8r. Co^{60} served as source of the γ-rays.

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4 types of coal were investigated: brown coal of the Podmoskovnyy basin and 3 sorts of the Donetskiy basin. The germanium content in 2 of the latter was low. The maximum yield of germanium was obtained of the Donets type PZh (50,2%) and of the brown coal (41,0%). The chlorination method (References 3-5) was used for further increasing the yield of germanium. Elementary chlorine is used for it. By more intensively chlorinating means such as sulfur monochloride, carbon tetrachloride and others this method can be considerably extended. As CCl_4 yields free chlorine as main product by γ-irradiation, the authors irradiated coal samples in CCl_4. The transition from germanium into the liquid phase of the coals of the Donets types "G" and "K" was insignificant at an integral dose of radiation of 10^6 and 10^7. At a dose of 10^8 the yield of germanium of the coke-coal amounted to 13%, of the gas-coal to only 5,6% of the total content. 53% germanium was produced of the type PZh (table 2). A complete extraction was obtained of the dried brown coal in dry CCl_4 (table 2). At an integral dose of 10^8 the entire ger-

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manium passes over into the liquid phase and can from there be produced by means of the known methods. The degree of extraction of germanium is not only dependent on the dose of irradiation but also on the amount of water present in the system. Besides the described use of CCl_4 for radiolysis an increased solubility of coals in CCl_4 after a γ-irradiation was also observed which may be of interest from the standpoint of the chemical working of coals. There are 2 tables and 8 references, 6 of which are Soviet.

ASSOCIATION: Institut goryuchikh iskopayemykh Akademii nauk SSSR (Institute of Fossil Fuel AS USSR)

PRESENTED: January 13, 1958, by A. V. Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: January 1o, 1958

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